

ANALYSIS OF THE MERCATOR POLICY OPTIONS

I-77 *EXPRESS*
LANES

Local Advisory Group Meeting #4

March 14, 2018

Group Purpose

Advise and Provide Input for the NCDOT Secretary

- a) Analyze Mercator Report 'Options to Consider'*
- b) Assess potential changes for the I-77 Express Lanes Project's Scope and P3 Contract*



Introductions and Roles

- **Local Advisory Group**

Provides input; analyzes pros and cons of various options

- **NCTA Staff**

Liaison with NCDOT; point of contact for LAG information requests

- **Mercator / RS&H Team**

Researches and presents options; brings expertise with projects of this size and scope

- **Facilitators**

Helps group have productive discussion and use its time effectively

Purpose and Approach: Ground Rules

- **“Share the Air”**
- **Listen to Others’ Perspectives**
- **Focus on Interests Before Taking Positions**
- **Seek Common Ground and Action**
- **When Speaking to Press and Public, Share Your Own View; Avoid Attributions About What Others Said**
- **Report Back to Your Respective Appointing Organizations**



Agenda – Meeting #4

- **Introduction**
- **Responding to Questions from Meeting #3**
- **Assessment Factors**
- **Policy Option Assessment**
- **Closing**



Questions from LAG Workshop #3

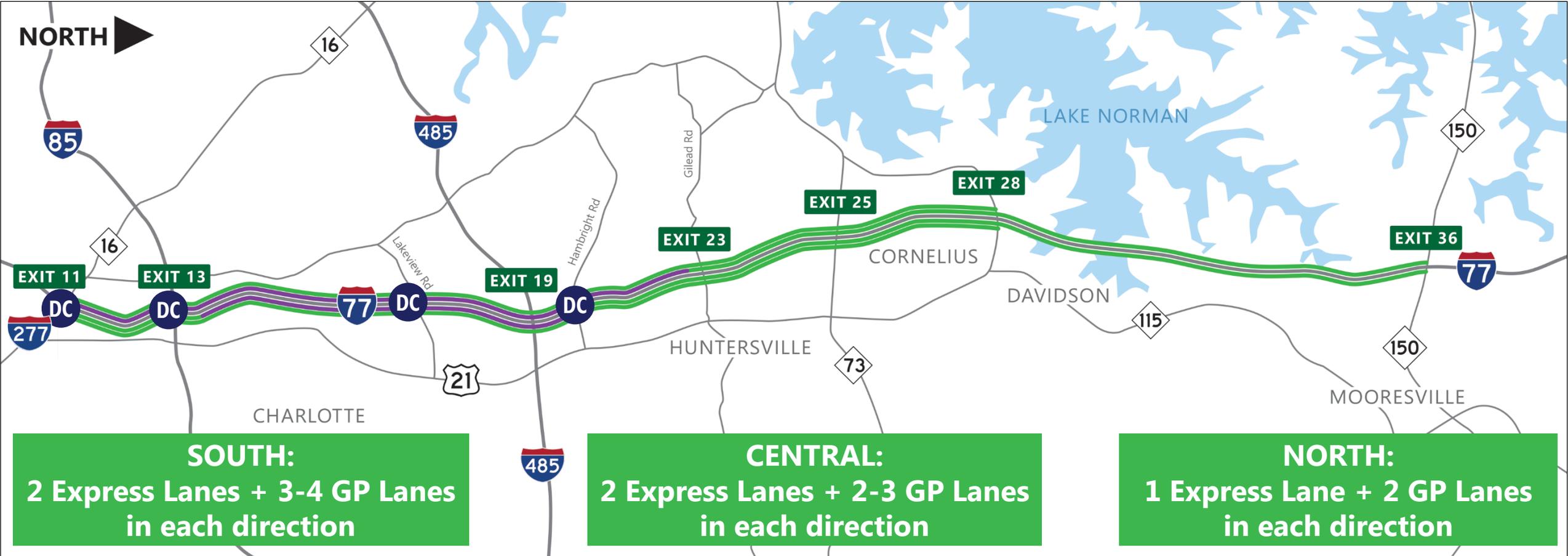
- **2014 Traffic Counts of I-77 HOV Lanes**
- **Operational Characteristics of Managed Lanes with Heavy Trucks**
- **Anticipated Travel Speeds Along I-77 with the Project**
- **Design Details of Access Points**

ANTICIPATED TRAVEL SPEEDS ALONG I-77

I-77 Express Lanes Project Scope

LEGEND

- Existing High Occupancy Vehicle (HOV) Lanes to be Converted to Express Lanes
- Express Lanes
- DC Direct Connector (DC)



SOUTH:
2 Express Lanes + 3-4 GP Lanes
in each direction

CENTRAL:
2 Express Lanes + 2-3 GP Lanes
in each direction

NORTH:
1 Express Lane + 2 GP Lanes
in each direction

2017 Travel Speeds Along I-77



2017 Field Observed Speed* (Existing Data – I-77 Project is NOT built)

	EXIT 11	EXIT 13	EXIT 19	EXIT 28	EXIT 33	EXIT 36
NO. LANES	8	6	4	4	4	4
AVG. SPEED	30 mph	49 mph	27 mph	24 mph	51 mph	

2017 Anticipated Speed with the I-77 Project** (NEPA Analysis)

GP LANES	NO. LANES	EXIT 11	EXIT 13	EXIT 19	EXIT 28	EXIT 33	EXIT 36
	AVG. SPEED	55-60 mph	55-60 mph	45-55 mph	40-50 mph	60+ mph	
HOT LANES	NO. LANES	4	4	4	2	2	
	AVG. SPEED	60+ mph	60+ mph	60+ mph	60+ mph	60+ mph	

2035 Travel Speeds Along I-77



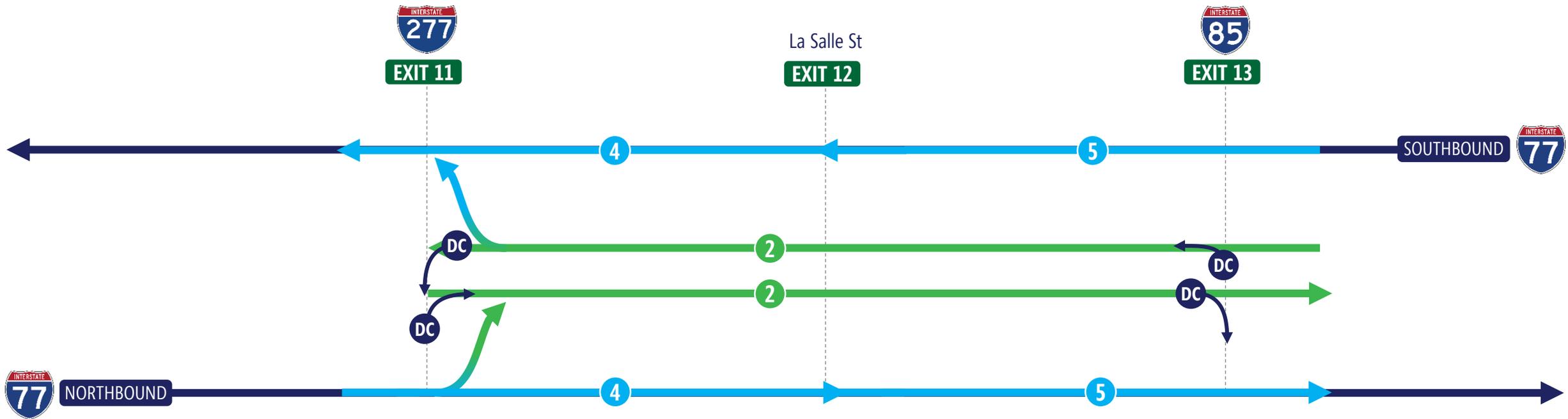
2035 Data (MUMPO Analysis)

GP LANES	2035 Data (MUMPO Analysis)	
	NO. LANES	ANTICIPATED AVG. SPEED
	8	35 mph
	6	30 mph
	4	35 mph

- Source: Analysis performed by MUMPO for peak periods using the regional travel demand model in 2013.
- Express Lanes are included in this analysis and would be functioning at a minimum speed of 45 mph.

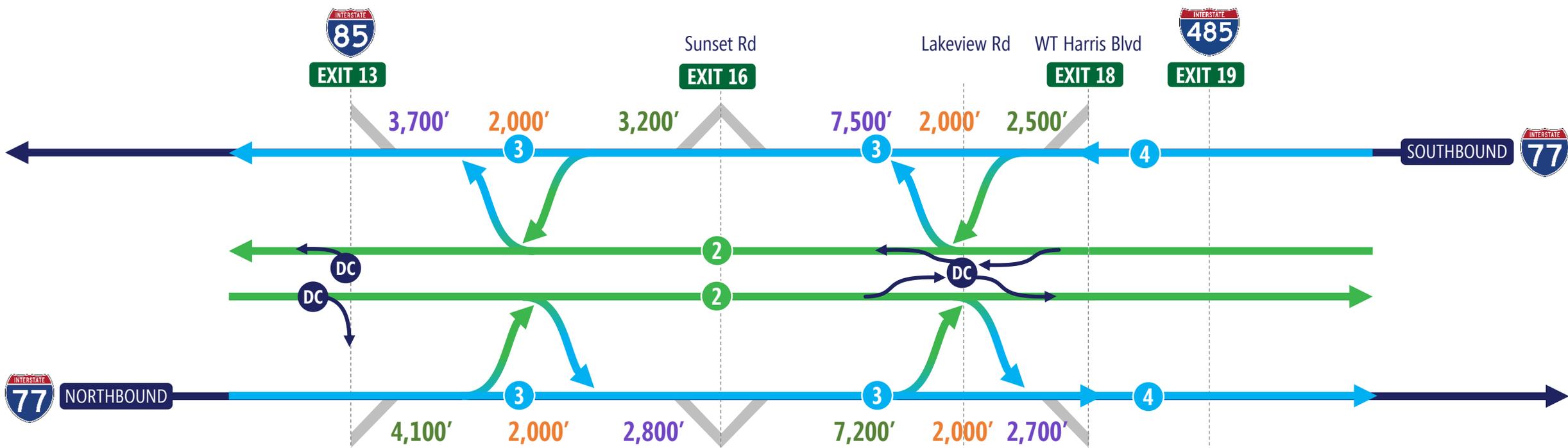
DESIGN DETAILS OF ACCESS POINTS

Access Points: Southern Segment



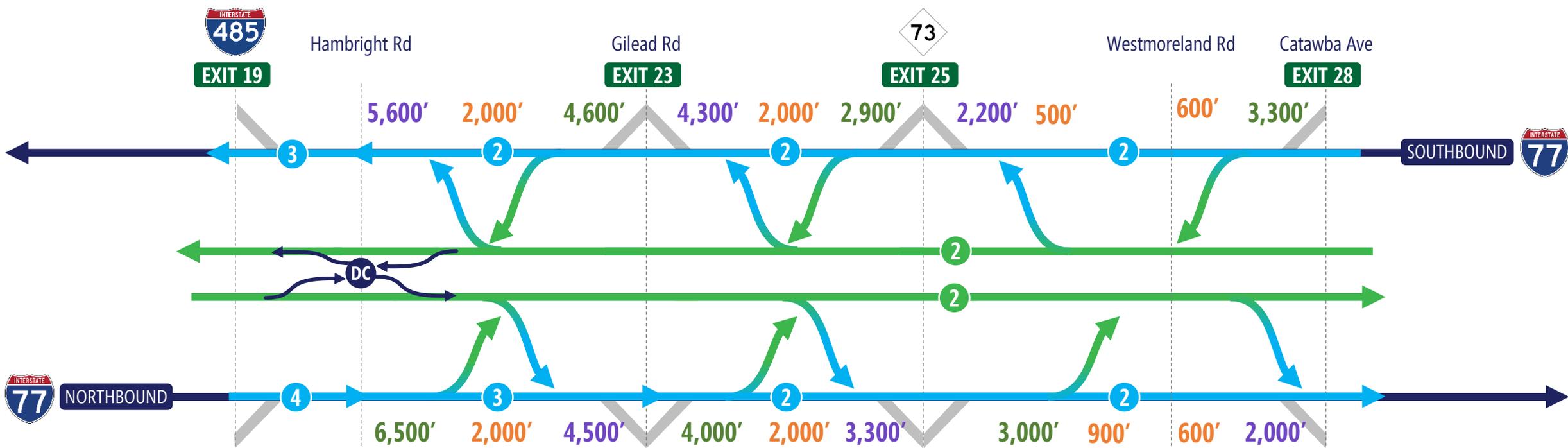
LEGEND	General Purpose Lanes	Enter to Express Lanes	Exit From Express Lanes	Number of Lanes	Direct Connector
	Express Lanes				

Access Points: Central Segment (South of I-485)



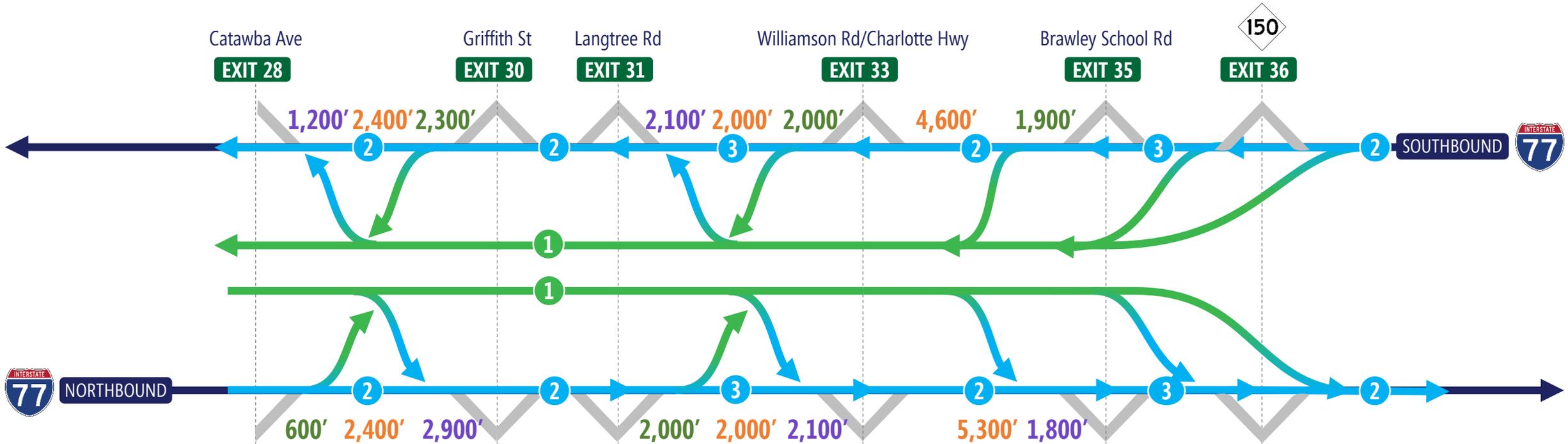
LEGEND	
	General Purpose Lanes
	Express Lanes
	Enter to Express Lanes
	Exit From Express Lanes
	Number of Lanes
	Direct Connector
XXXX	Distance between On-Ramp and EL Entry
XXXX	Access Point Length
XXXX	Distance between EL Exit and Off-Ramp
	On/Off Ramp

Access Points: Central Segment (North of I-485)



LEGEND	
	General Purpose Lanes
	Express Lanes
	Enter to Express Lanes
	Exit From Express Lanes
	Number of Lanes
	Direct Connector
XXXX	Distance between On-Ramp and EL Entry
XXXX	Access Point Length
XXXX	Distance between EL Exit and Off-Ramp
	On/Off Ramp

Access Points: Northern Segment



LEGEND	General Purpose Lanes	Enter to Express Lanes	Exit From Express Lanes	Number of Lanes	Distance between On-Ramp and EL Entry	Distance between EL Exit and Off-Ramp
	Express Lanes			Direct Connector	Access Point Length	On/Off Ramp

MERCATOR OPTIONS

Mercator Policy Options

Option A: Terminate the CA and Complete the Express Lanes Project Using Public Funding or Financing as it Becomes Available

Option B: Terminate the CA and Allow CRTPO to Determine Whether Express Lanes Should Remain in the Transportation Plan or be Replaced or Supplemented with Other Improvements Based on Available Resources

Option C: Negotiate Modifications to the Project Scope and/or the Terms of the CA, Such as:

C.1 - Deferring or eliminating tolling of certain lanes

C.2 - Reduce the financial impact on local residents by establishing frequent user discounts or toll credits

C.3 - Revising the truck restrictions to allow larger vehicles that can use the express lanes safely

C.4 - Encouraging greater use of new capacity by allowing HOT2+ for some period of time

C.5 - Modifying the compensation provisions for unplanned revenue impacting facilities

Option D: Work with CRTPO to Identify and Advance Additional Improvements to Address Mobility Issues in the Corridor

Option E: Develop Preliminary Plans to Negotiate and Finance the Purchase of the Express Lanes Project After Completion

Option F: Complete and Delete

ASSESSMENT FACTORS

COSTS, APPROVALS, AND SCHEDULE IMPACTS

Assessment Factors

- **Potential Cost Impacts**

- What are the costs associated with each Option to terminate, modify contract, stop construction, and complete construction by NCDOT?
- How would the toll revenue be affected?

- **Required Scope and Funding Approvals**

- What approvals would be needed for each Option based on the funding needs and scope changes?

- **Schedule Impacts**

- What are the schedule impacts for funding, approvals, and construction of the facility?

Cost Impacts

- **Cost of Termination**
- **Cost to Complete**
- **Temporary Construction**
- **Demobilization of Contractor and Developer**
- **Design and Construction Modifications**
- **Other**

Required Scope and Funding Approvals

- **CRTPO MTP Project List Amendments**
- **Strategic Transportation Investments (STI) Project Prioritization**
- **Air Quality Conformity Determination**
- **Environmental Documentation**
- **FHWA and Other Agency Reviews**
- **This List Excludes Lenders and Investors**

Schedule Impacts

- **Obtaining Required Approvals**
- **Preparing Necessary Document and Design Revisions**
- **Obtaining Funding**
- **Completing Facility Construction**

OPTION ASSESSMENT

COSTS, APPROVALS, AND SCHEDULE IMPACTS

A: Terminate the CA and Complete the Express Lanes Project Using Public Funding or Financing as it Becomes Available

- **Contract would be Terminated During Construction**
- **NCDOT would Complete the Construction with No Change to the Scope Using Public Funding or Financing as it Becomes Available**
- **NCDOT would Maintain and Operate the Entire Facility Including the Tolled Express Lanes**

OPTION A: TERMINATE THE CA AND COMPLETE THE EXPRESS LANES PROJECT

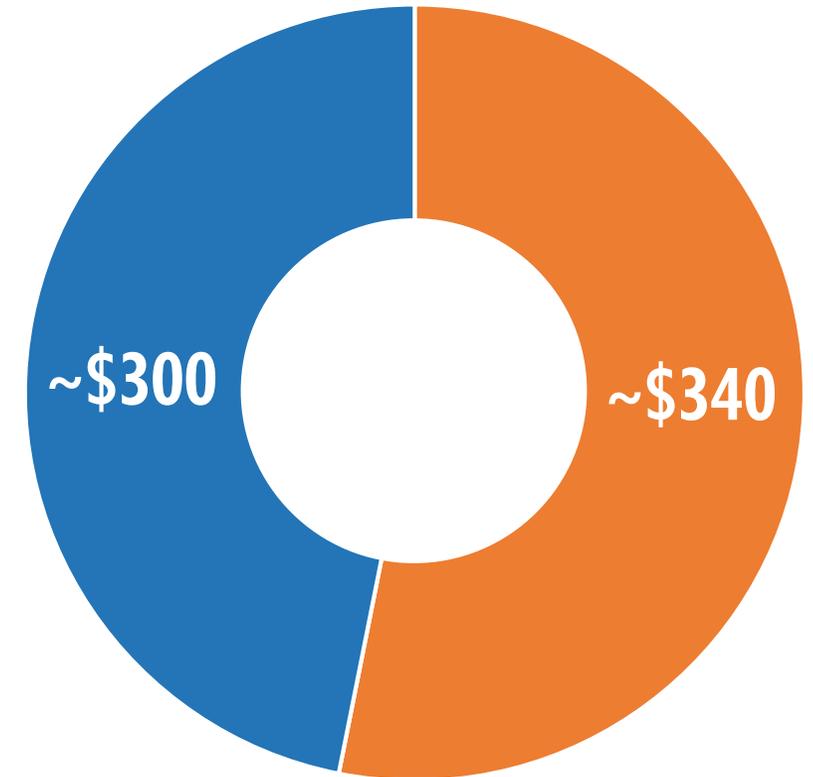
Cost Impacts – A

TERMINATION COST* ITEMS	APPROXIMATE COST	NOTES
Senior Debt	~\$290M	TIFIA \$189M, PAB \$100M, other fees for canceling of loans/bonds
Demobilization and Temporary Construction	~\$50M	Based on remaining construction value, includes O&M building, also design and construction to shore up project.
TOTAL	~\$340M	

**Termination is greater of Senior Debt plus allowable costs or Fair Market Value of the Project less Cost to Complete*

COMPLETION COST ITEM	APPROXIMATE COST	NOTES
Cost of Construction to Complete	~\$300M	\$264M Original, 15% for additional oversight and new procurement
Design and Construction Modifications	N/A	No change in scope
TOTAL	~\$300M	

Note: All costs are approximate estimates as of January 2018.



- Termination, Demobilization, and Temporary Construction
- Cost to Complete

Scope and Funding Approvals – A

APPROVALS	REQUIRED?	NOTES
CRTPO MTP Project List Amendment	No	No change in the Project scope provided the Project is open by horizon year 2025.
STI Project Prioritization	Yes	Depending on cost impacts, if additional funding is necessary – STI Project Prioritization would need to occur. Next Prioritization is expected to occur between 2019 and 2021, which prioritizes projects to be included in the funded project list for FY2022 to FY2031. Inclusion of I-77 Project in this list would be dependent on competition against other projects and availability of funding.
Air Quality Conformity Determination	No	No change in the Project scope provided the Project is open by horizon year 2025.
Environmental Documentation	Yes	No change in the Project scope and Project’s purpose and need statement. However, depending on date of re-letting, an update to the document may be necessary.
FHWA and Other Agencies	Yes	Additional reviews and associated approvals of the document update

OPTION A: TERMINATE THE CA AND COMPLETE THE EXPRESS LANES PROJECT

Schedule Impacts – A

2018			2019				2020				2021				2022				2023				2024				
Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Stop Construction																											
STI Project Prioritization												<i>Next project prioritization is expected to occur between 2019 and 2021 (to include projects in the funded project list for FY2022 to FY2031).</i>															
												Re-Let Project				<i>Inclusion of I-77 project in this list is dependent on competition against other projects and availability of funding.</i>											
												Construction															
																				Open to Traffic							

Depending on funding availability and status of construction at the time of termination, this schedule could change.

Discussion of Option A

- **Are You Ready to Start Talking About the Pros/Cons of This Option?**
- **How Do You See the Pros/Cons of This Option?**
- **Is There Any Additional Information You Want to Understand This Option?**

B: Terminate the CA and Allow CRTPO to Determine Whether Express Lanes Should Remain in the Transportation Plan or be Replaced or Supplemented with Other Improvements Based on Available Resources

- **Contract would be Terminated and Construction would Stop**
- **CRTPO would Determine Whether Express Lanes Should:**
 - Be replaced or supplemented with other improvements based on available resources
- **A New Environmental Document would be Prepared with a New Purpose and Need Statement**
- **The New Project would be Implemented Through STI Project Prioritization Process**

OPTION B: TERMINATE THE CA AND THE EXPRESS LANES PROJECT

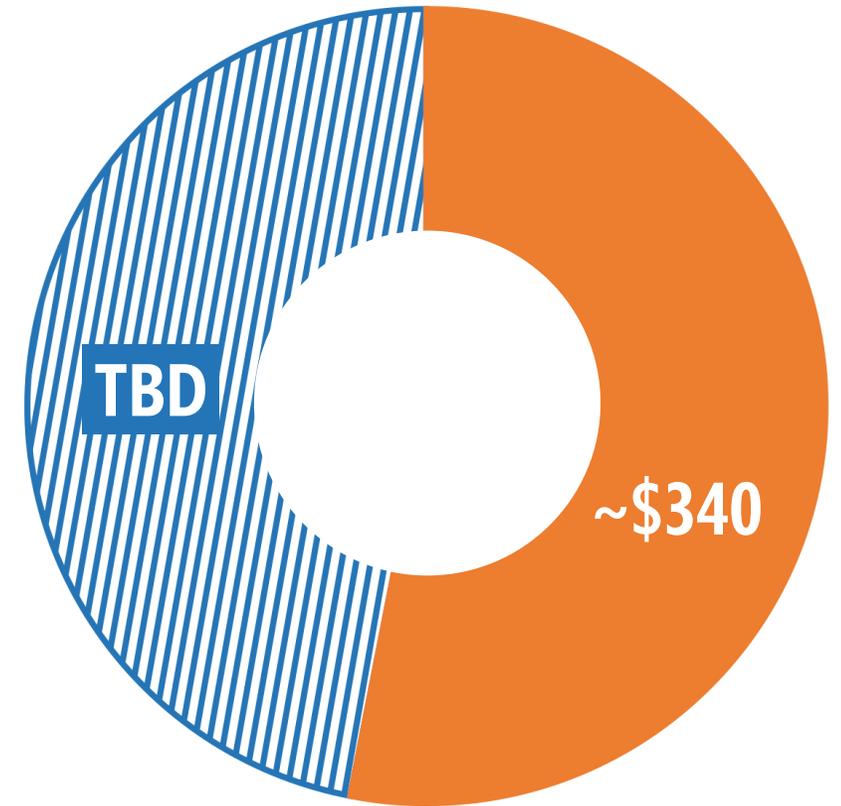
Cost Impacts – B

TERMINATION COST* ITEMS	APPROXIMATE COST	NOTES
Senior Debt	~\$290M	TIFIA \$189M, PAB \$100M, other fees for canceling of loans/bonds
Demobilization and Temporary Construction	~\$50M	Based on remaining construction value, includes O&M building, also design and construction to shore up project.
Total	~\$340M	

*Termination is greater of Senior Debt plus allowable costs or Fair Market Value of the Project less Cost to Complete

COMPLETION COST ITEM	APPROXIMATE COST	NOTES
Cost of New Project	TBD	Unclear of scope and magnitude of new Project
Design and Construction Modifications	N/A	Assumes a new Project
TOTAL	TBD	

Note: All costs are approximate estimates only as of January 2018.



- Termination, Demobilization, and Temporary Construction
- Cost to Complete

Scope and Funding Approvals – B

APPROVALS	REQUIRED?	NOTES
CRTPO MTP Project List Amendment	Yes	CRTPO would need to determine how to proceed with I-77 Project.
STI Project Prioritization	Yes	Next Prioritization is expected to occur between 2019 and 2021, which prioritizes projects to be included in the funded project list for FY2022 to FY2031. Inclusion of the new I-77 Project in this list would be dependent on competition against other projects and availability of funding.
Air Quality Conformity Determination	Yes	Air Quality analysis for the new Project.
Environmental Documentation	Yes	New document for the new Project with new purpose and need statement.
FHWA and Other Agencies	Yes	New reviews and associated permits.

Discussion of Option B

- **Are You Ready to Start Talking About the Pros/Cons of This Option?**
- **How Do You See the Pros/Cons of This Option?**
- **Is There Any Additional Information You Want to Understand This Option?**

C: Negotiate Modifications to the Project Scope and/or the Terms of the CA

C.1 - Deferring or Eliminating Tolling of Certain Lanes

C.2 - Reducing the Financial Impact on Frequent Users

C.3 - Revising the Truck Restrictions to Allow Larger Vehicles That Can Use the Express Lanes Safely

C.4 - Encouraging Greater Use of the Express Lanes by Allowing HOT2+ for Some Period of Time

C.5 - Modifying the Compensation Provisions for Unplanned Revenue Impacting Facilities

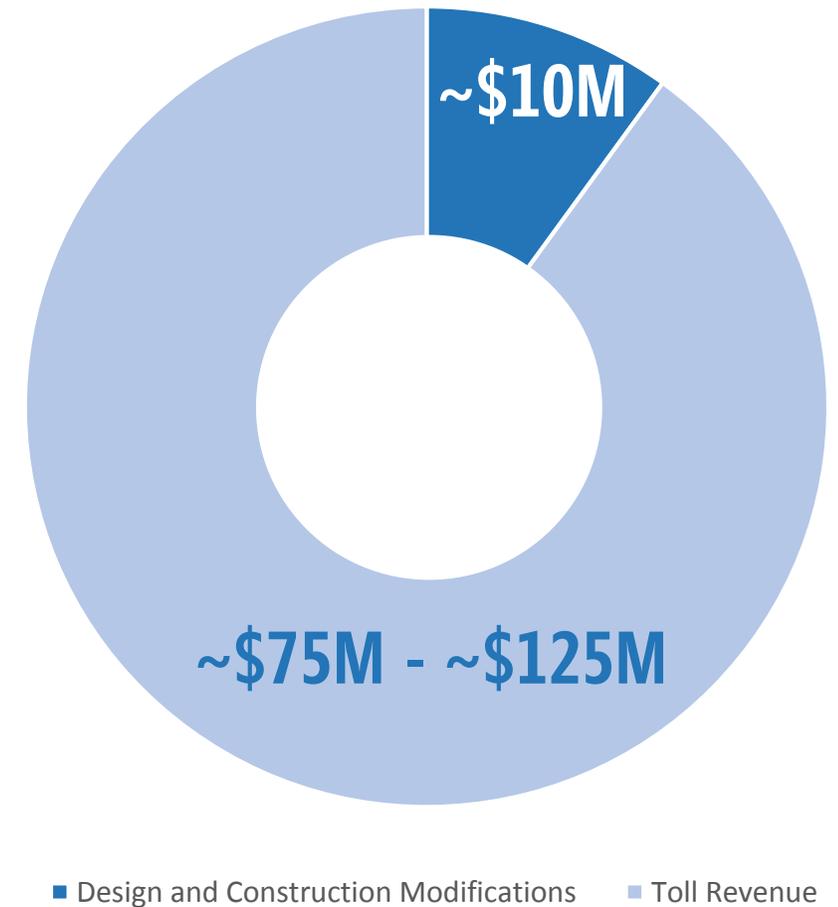
C.1 - Deferring or Eliminating Tolling of Certain Lanes

- **Mercator Report Referenced Elimination of One Express Lane in Each Direction Between Exits 23 and 28**
 - Results in a conversion from two express lanes and two general purpose lanes to one express lane and three general purpose lanes in each direction
 - Usage of third general purpose lane would be restricted for heavy trucks
- **Developer would Complete the Construction**
- **Developer would Maintain the Entire Facility**

C.1: DEFERRING OR ELIMINATING TOLLING OF CERTAIN LANES

Cost Impacts – C.1

COMPLETION COST & REVENUE IMPACT ITEMS	APPROXIMATE COST	NOTES
Design and Construction Modifications	~\$10M	Redesign and construction modifications for conversion of one EL to a GP lane from Exit 23 to 28
Toll Revenue	~\$75M - ~\$125M	Reduction of capacity for EL may increase toll rates during peak periods in order to provide reliable travel time (minimum speeds required). Reduction in EL traffic would result in decrease in revenues
TOTAL	~\$85M - ~\$135M	



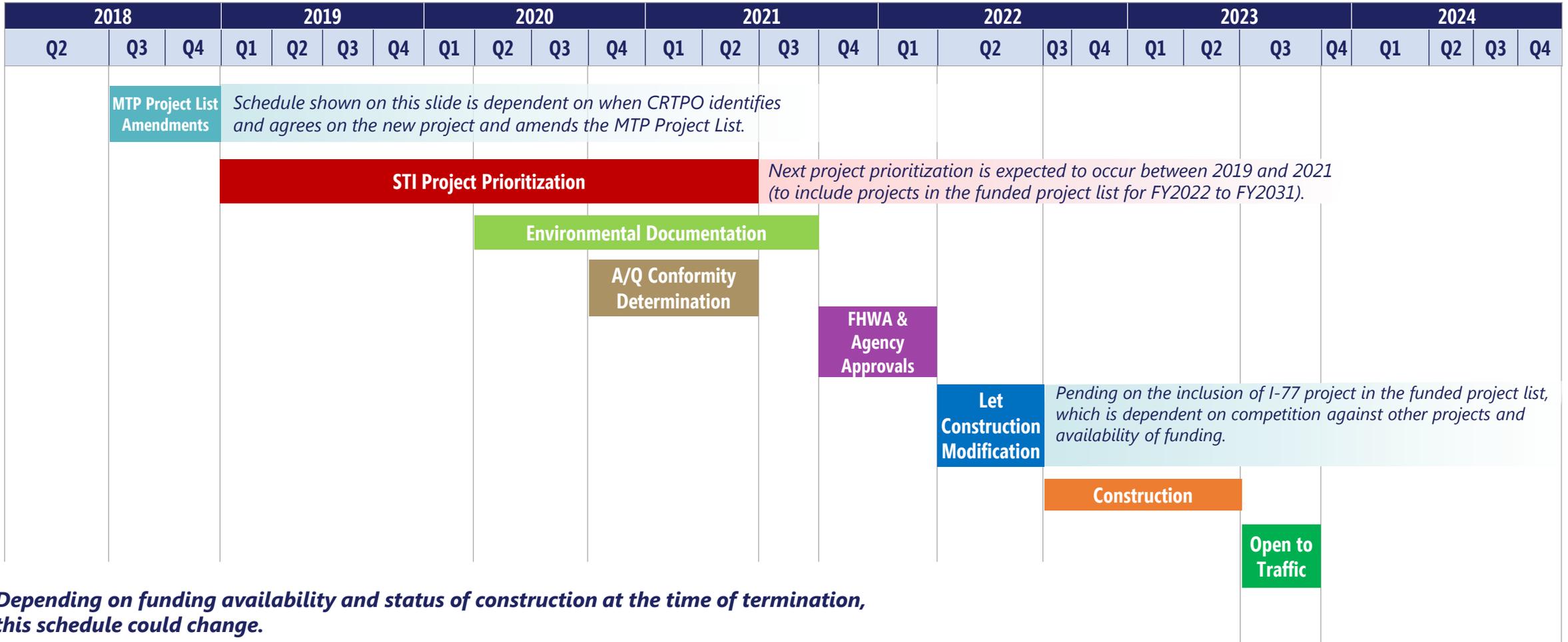
Note: All costs are approximate estimates only as of January 2018.

Scope and Funding Approvals – C.1

APPROVALS	REQUIRED?	NOTES
CRTPO MTP Project List Amendment	Yes	Project scope would be different.
STI Project Prioritization	Yes	Depending on cost impacts, if additional funding is necessary – STI Project Prioritization would need to occur. Next Prioritization is expected to occur between 2019 and 2021, which prioritizes projects to be included in the funded project list for FY2022 to FY2031. Inclusion of this revision in this list would be dependent on competition against other projects and availability of funding.
Air Quality Conformity Determination	Yes	Project scope would be different.
Environmental Documentation	Yes	Revised document would need to be prepared for the scope change.
FHWA and Other Agencies	Yes	Additional reviews and associated approvals

OPTION C.1: DEFERRING OR ELIMINATING TOLLING OF CERTAIN LANES

Schedule Impacts – C.1



Depending on funding availability and status of construction at the time of termination, this schedule could change.

Discussion of Option C.1

- **Are You Ready to Start Talking About the Pros/Cons of This Option?**
- **How Do You See the Pros/Cons of This Option?**
- **Is There Any Additional Information You Want to Understand This Option?**

C.2 - Reduce the Financial Impact on Local Residents by Establishing Frequent User Discounts or Toll Credits

- **Mercator Report Referenced Providing Discounts or Toll Credits Based on the Number of Trips Over a Certain Time Period**
 - Mercator report did not specify a specific discount method or process
- **Additional Consideration:**
 - Specific discounts/credits would need to be evaluated

Cost Impacts – C.2

COST & REVENUE IMPACT OF ITEM	APPROXIMATE COST	NOTES
C.2- No Scope Change Costs but Reduction in Revenue	<\$50M	Dependent on actual discount provided. No additional construction costs anticipated.

Scope and Funding Approvals – C.2

APPROVALS	REQUIRED?	NOTES
CRTPO MTP Project List Amendment	No	No change in the Project scope and no change in the Project opening date.
STI Project Prioritization	No	Do not expect any additional Project funding needs – however, a decision needs to be made about funding source for discounts.
Air Quality Conformity Determination	No	No change in the Project scope and no change in the Project opening date.
Environmental Documentation	No	No change in the Project scope and no change in the Project’s purpose and need statement.
FHWA and Other Agencies	No	None anticipated - no change in the Project scope

Schedule Impacts – C.2

- **This Option would not Require Stopping the Construction**
- **Negotiations for Contract Modifications would Need to be Held to Determine Impacts of Frequent User Discounts**

Discussion of Option C.2

- **Are You Ready to Start Talking About the Pros/Cons of This Option?**
- **How Do You See the Pros/Cons of This Option?**
- **Is There Any Additional Information You Want to Understand This Option?**

C.3 - Revising the Truck Restrictions to Allow Larger Vehicles That Can Use the Express Lanes Safely

- **Current Contract does not Allow:**
 - Vehicles with more than two axles
 - Vehicles >20' long or >8.5' wide or >12' high
- **Transit and Emergency Response Vehicles are Exempt from this Restriction**
- **Mercator Report Referenced Modifying or Replacing that Standard with**
 - A standard based on gross vehicle weight or other criteria that would permit access to box trucks and other large vehicles that can use the Express Lanes safely
- **Additional Consideration:**
 - Specific vehicle types would need to be defined

Cost Impacts – C.3

COST & REVENUE IMPACT OF ITEM	APPROXIMATE COST	NOTES
C.3 – Scope Changes would Need to be Evaluated with Specific Vehicle Types, Revenue Impact is Unknown	TBD	Specific vehicle type and length will need to be determined as well as toll rate difference if any, to determine how it impacts the Express Lanes from an operations and a revenue standpoint. No additional construction costs anticipated.

Scope and Funding Approvals – C.3

APPROVALS	REQUIRED?	NOTES
CRTPO MTP Project List Amendment	Yes	Project scope would be different.
STI Project Prioritization	No	Do not expect any additional Project funding needs.
Air Quality Conformity Determination	Yes	Project scope would be different.
Environmental Documentation	Yes	Revised document would need to be prepared for the scope change.
FHWA and Other Agencies	Yes	Additional reviews and associated approvals.

Schedule Impacts – C.3

- **This Option would not Require Stopping the Construction**
- **Negotiations for Contract Modifications would Need to be Held to Determine Impacts on Specific Type of Truck Allowance**
- **Implementation of Truck Allowance would be Dependent on the Scope and Funding Approvals Schedule**

Discussion of Option C.3

- **Are You Ready to Start Talking About the Pros/Cons of This Option?**
- **How Do You See the Pros/Cons of This Option?**
- **Is There Any Additional Information You Want to Understand This Option?**

C.4 - Encouraging Greater Use of New Capacity by Allowing HOT2+ for Some Period of Time

- **Current Contract Allows Usage of Express Lanes for Free for HOT3+ Vehicles**
- **Mercator Report Referenced Allowing HOT2+ Vehicles to Use the Express Lanes During the Initial Period of Operation**
 - Ease the transition to HOT3+ and encourage more drivers to obtain transponders and use the express lanes

Cost Impacts – C.4

COST & REVENUE IMPACT OF ITEM	APPROXIMATE COST	NOTES
C.4 No Scope Change Costs but Reduction in Revenue	<\$50M	The time period for HOT2+ would need to be evaluated to determine the actual revenue impact of this Option. The “<\$50M” estimate assumes that HOT2+ are allowed for some time based on performance. No additional construction costs anticipated.

Scope and Funding Approvals – C.4

APPROVALS	REQUIRED?	NOTES
CRTPO MTP Project List Amendment	Yes	Project scope would be different.
STI Project Prioritization	No	Do not expect any additional Project funding needs – however, a decision needs to be made about funding source for discounts.
Air Quality Conformity Determination	Yes	Project scope would be different.
Environmental Documentation	Yes	Revised document would need to be prepared for the scope change.
FHWA and Other Agencies	Yes	Additional reviews and associated approvals.

Schedule Impacts – C.4

- **This Option would not Require Stopping the Construction**
- **Negotiations for Contract Modifications would Need to be Held to Determine Impacts of HOT2+ Usage and Schedule Change**
- **Implementation of HOT2+ would be Dependent on the Scope and Funding Approvals Schedule**

Discussion of Option C.4

- **Are You Ready to Start Talking About the Pros/Cons of This Option?**
- **How Do You See the Pros/Cons of This Option?**
- **Is There Any Additional Information You Want to Understand This Option?**

C.5 - Modifying the Compensation Provisions for Unplanned Revenue Impacting Facilities

- **Contract Allows the Developer to Seek Compensation if:**
 - A main lane within the right-of-way airspace of the project is added and adversely affects toll revenue
- **Planned Facilities at the Time of Contract Execution are not Subject to Compensation Provisions, Except for:**
 - An additional general purpose lane between exits 28 and 36
- **Contract Modification could Evaluate a Time Period Prior to Implementing Such Improvements**

Cost Impacts – C.5

COST & REVENUE IMPACT OF ITEM	APPROXIMATE COST	NOTES
C.5 Potential Impacts are Unknown	<\$50M	This Option will not impact the Project unless adding additional main line lanes along I-77. The “<\$50M” estimate could vary significantly depending on when NCDOT would acquire the rights to build and/or when sufficient funding is allocated to build the additional main lanes along I-77 through the STI Project Prioritization Process.

Scope and Funding Approvals – C.5

APPROVALS	REQUIRED?	NOTES
CRTPO MTP Project List Amendment	No	However, MTP project list amendments would be needed for the identified unplanned facilities.
STI Project Prioritization	No	Do not expect any additional Project funding needs – however, a decision needs to be made about funding lost revenue. Also, STI Project Prioritization would need to be performed to obtain funding for the identified unplanned facilities.
Air Quality Conformity Determination	No	However, air quality conformity determination would be needed for the identified unplanned facilities.
Environmental Documentation	No	However, additional environmental documentation would be needed for the identified unplanned facilities.
FHWA and Other Agencies	No	However, additional reviews and approvals would be needed for the identified unplanned facilities.

Schedule Impacts – C.5

- **This Option would not Require Stopping the Construction.**
- **Contract Modifications would be Dependent on Identifying Specific Unplanned Revenue Impacting Facilities**
- **Depending on the Identified Unplanned Facilities, Additional Studies would Need to be Performed Before Constructing Those Facilities**

Discussion of Option C.5

- **Are You Ready to Start Talking About the Pros/Cons of This Option?**
- **How Do You See the Pros/Cons of This Option?**
- **Is There Any Additional Information You Want to Understand This Option?**

D: Work with CRTPO to Identify and Advance Additional Improvements to Address Mobility Issues in the Corridor

- **Developer would Complete the Project with Current Scope, Including Tolled Express Lanes**
- **Contract Allows Other Projects to be Advanced**
- **This Option Focuses on Additional Improvements in the I-77 Corridor**

Cost Impacts – D

COST & REVENUE IMPACT OF ITEM	APPROXIMATE COST	NOTES
D. Potential Impacts are Unknown	TBD	This option will not impact the Project unless adding additional main line lanes along I-77.

Scope and Funding Approvals – D

APPROVALS	REQUIRED?	NOTES
CRTPO MTP Project List Amendment	No	However, MTP project list amendments would be needed for the identified additional improvements.
STI Project Prioritization	No	However, STI Project Prioritization would need to be performed to obtain funding for the identified additional improvements.
Air Quality Conformity Determination	No	However, air quality conformity determination would be needed for the identified additional improvements.
Environmental Documentation	No	However, additional environmental documentation would be needed for the identified additional improvements.
FHWA and Other Agencies	No	However, additional reviews and approvals would be needed for the identified additional improvements.

Schedule Impacts – D

- **This Option would not Require Stopping the Construction**
- **Depending on the Additional Improvements Identified, Subsequent Studies would Need to be Performed Before Constructing Those Facilities.**
- **If Additional Improvements Meet the Definition of Unplanned Revenue Impacting Facilities, Potential Compensation Impacts would Need to be Negotiated.**

Discussion of Option D

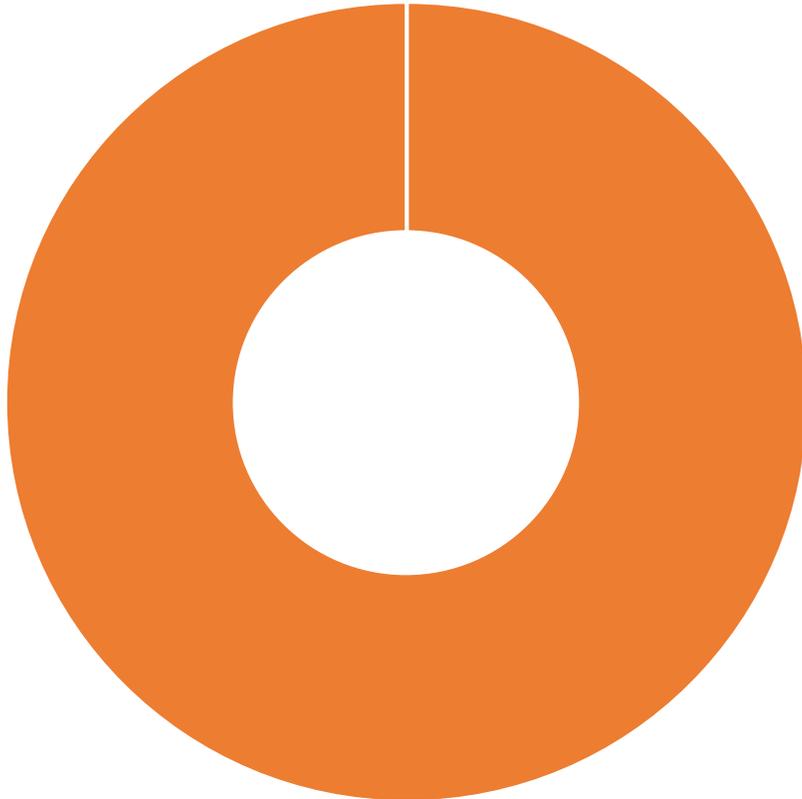
- **Are You Ready to Start Talking About the Pros/Cons of This Option?**
- **How Do You See the Pros/Cons of This Option?**
- **Is There Any Additional Information You Want to Understand This Option?**

E: Develop Preliminary Plans to Negotiate and Finance the Purchase of the Express Lanes Project After Completion

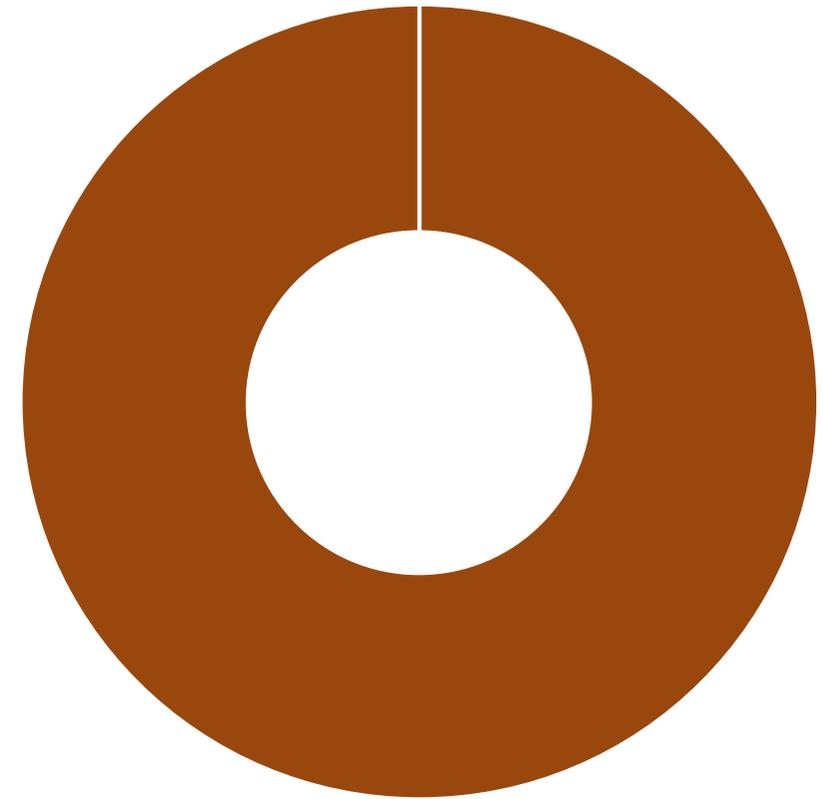
- **Developer would Complete the Project with Current Scope, Including Tolled Express Lanes**
 - Developer would operate and maintain the entire facility for some period of time
- **NCDOT would Purchase the Contract After Opening the Facility**
 - NCDOT would take over the operations and maintenance of the entire facility including the tolled express lanes
 - Timing of the transition has not been defined

Cost Impacts – E

Senior Debt



Fair Market Value (FMV)



**Termination is greater of Senior Debt plus allowable costs or Fair Market Value of the Project less Cost to Complete*

Potential Termination Compensation as of 12/31/16

	AMOUNTS IN \$ MILLIONS	ASSUMED WEIGHTED AVERAGE COST OF CAPITAL	[i] Fair Market Value* Estimate as of 12/31/16	[ii] Estimated Senior Debt* Termination as of 12/31/16	Greater of i and ii Termination Compensation
SCENARIO A	Calculation with Equity Participant's Advisor Projection of Traffic and Revenue	11.00%	\$125	\$149	\$149
SCENARIO B	Calculation with 50% of Equity Participant's Advisor Projection of Traffic and Revenue	9.00%	(\$2)	\$149	\$149
SCENARIO C	Calculation with 150% of Equity Participant's Advisor Projection of Traffic and Revenue	13.00%	\$168	\$149	\$168

****All costs are approximate estimates and do not include demobilization costs, breakage costs, or additional allowable costs.***

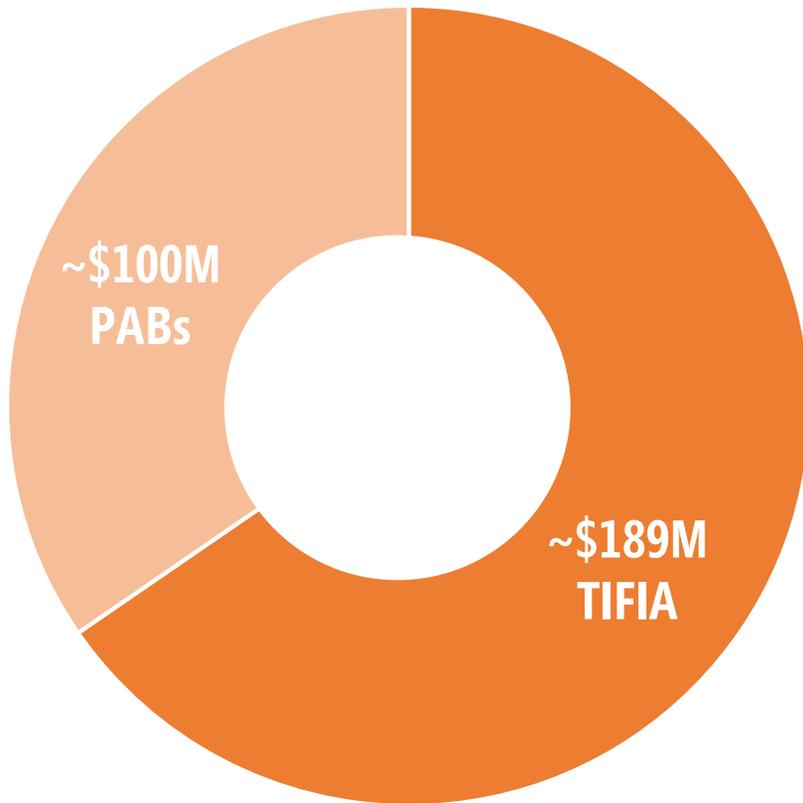
Potential Termination Compensation as of 01/01/19

	AMOUNTS IN \$ MILLIONS	ASSUMED WEIGHTED AVERAGE COST OF CAPITAL	[i] Fair Market Value* Estimate as of 1/1/19	[ii] Estimated Senior Debt* Termination as of 1/1/19	Greater of i and ii Termination Compensation
SCENARIO A	Calculation with Equity Participant's Advisor Projection of Traffic and Revenue	11.00%	\$392	\$289	\$392
SCENARIO B	Calculation with 50% of Equity Participant's Advisor Projection of Traffic and Revenue	9.00%	\$555	\$289	\$555
SCENARIO C	Calculation with 150% of Equity Participant's Advisor Projection of Traffic and Revenue	13.00%	\$623	\$289	\$623

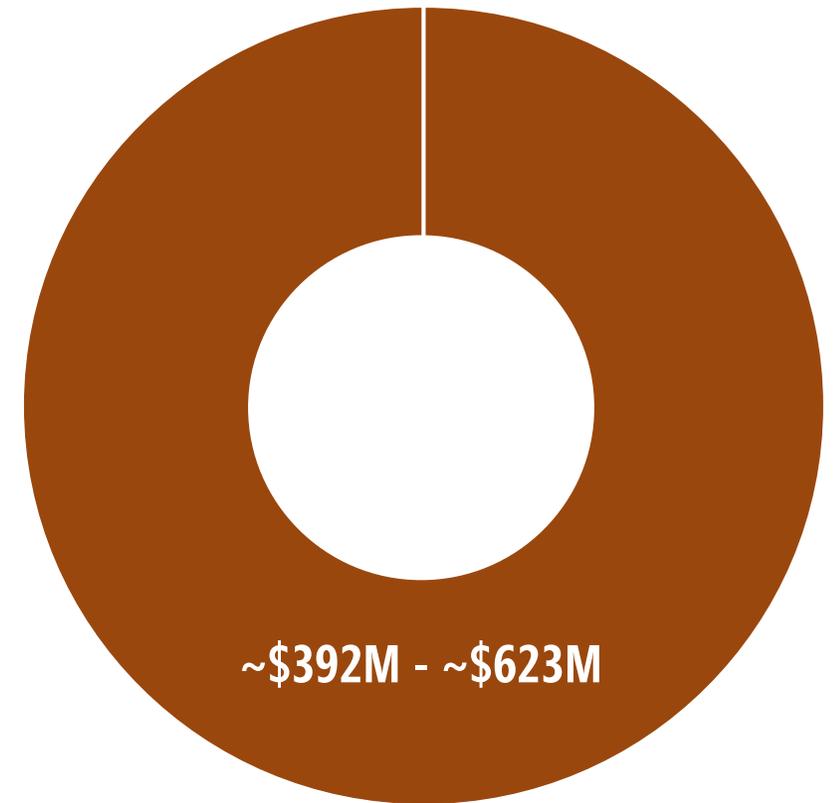
****All costs are approximate estimates and do not include demobilization costs, breakage costs, or additional allowable costs.***

Cost Impacts - E

Senior Debt



Fair Market Value (FMV)



**Termination is greater of Senior Debt plus allowable costs or Fair Market Value of the Project less Cost to Complete*

Note: All costs are approximate estimates that do not include additional allowable amounts per contract for Termination. Also assumes that the public funds are utilized as planned.

Scope and Funding Approvals – E

APPROVALS	REQUIRED?	NOTES
CRTPO MTP Project List Amendment	No	No change in the Project scope provided the Project is open by horizon year 2025.
STI Project Prioritization	Yes	In order to obtain funds to pay for the termination, STI Project Prioritization would be required. Next Prioritization is expected to occur between 2019 and 2021, which prioritizes projects to be included in the funded project list for FY2022 to FY2031. Inclusion of I-77 Project termination in this list is dependent on competition against other projects and availability of funding.
Air Quality Conformity Determination	No	No change in the Project scope provided the Project is open by horizon year 2025.
Environmental Documentation	No	No change in the Project scope and Project’s purpose and need statement.
FHWA and Other Agencies	No	None anticipated - no change in the Project scope.

Schedule Impacts – E

- **This Option would not Require Stopping the Construction**
- **After Opening the I-77 Express Lanes, Negotiations for Contract Termination would Need to be Held Based on the Project Performance**

Discussion of Option E

- **Are You Ready to Start Talking About the Pros/Cons of This Option?**
- **How Do You See the Pros/Cons of This Option?**
- **Is There Any Additional Information You Want to Understand This Option?**

F: Complete and Delete

- **Developer would Complete the Construction of Additional Lanes**
- **Contract would be Modified to “Delete” the Electronic Toll Collection System**
 - Effectively converting the express lanes to general purpose lanes
- **Contract would be Terminated After Construction is Complete**
- **NCDOT would Operate and Maintain the New Lanes**
 - Which would be open to all traffic except heavy trucks
 - Existing HOV lane limits would be retained
- **Additional Considerations:**
 - Overpass bridge structures conflict with expanding new lanes adjacent to current general purpose lanes in south and central sections
 - Maintain current ingress/egress access and direct connectors vs. reduced/limited access

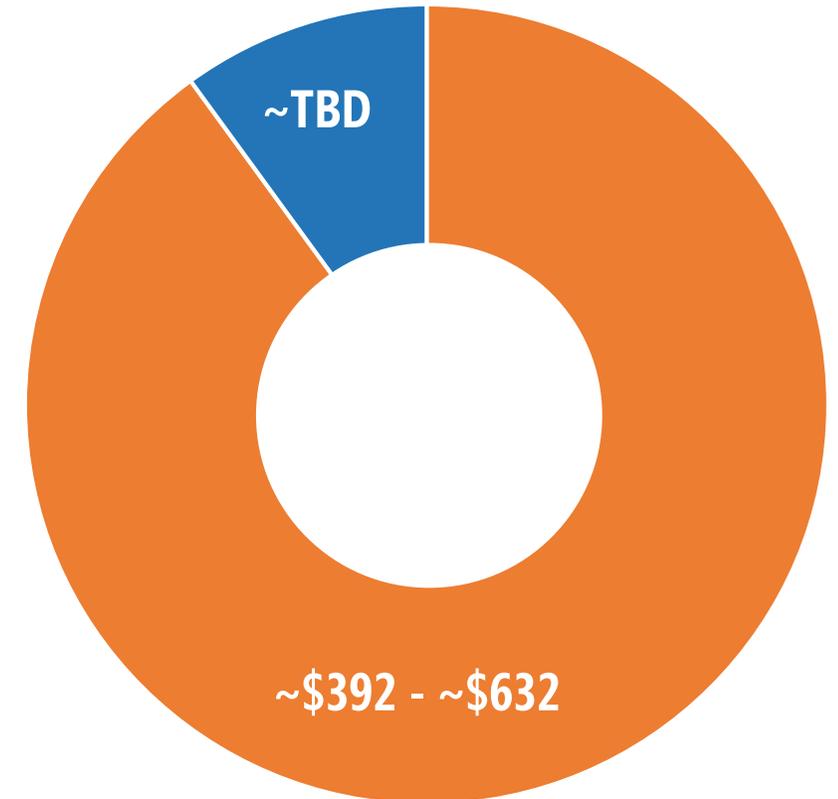
OPTION F: COMPLETE AND DELETE

Cost Impacts – F

TERMINATION COST* ITEMS	APPROXIMATE COST	NOTES
Senior Debt	~\$300M	TIFIA \$189M, PAB \$100M, Developer demobilization and other fees for canceling of loans/bonds
Fair Market Value	TBD	Estimated Range from +/--\$392 to +/--\$632 (see option E)

**Termination is greater of Senior Debt plus allowable costs or Fair Market Value of the Project less Cost to Complete*

COMPLETION COST ITEM	APPROXIMATE COST	NOTES
Design and Construction Modifications	TBD	Scope questions remain regarding leaving as a non-tolled express lane system or adjacent general purpose lanes. Also, south and central sections have overpasses conflicting with having all lanes adjacent to one another.



■ Fair Market Value ■ Design and Construction Modification

Note: All costs are approximate estimates only as of January 2018.

Scope and Funding Approvals – F

APPROVALS	REQUIRED?	NOTES
CRTPO MTP Project List Amendment	Yes	Project scope would be different.
STI Project Prioritization	Yes	In order to obtain funds to pay for the termination, STI Project Prioritization would be required. Next Prioritization is expected to occur between 2019 and 2021, which prioritizes projects to be included in the funded project list for FY2022 to FY2031. Inclusion of the I-77 Project in this list would be dependent on competition against other projects and availability of funding.
Air Quality Conformity Determination	Yes	Project scope would be different.
Environmental Documentation	Yes	Revised document would need to be prepared for the scope change.
FHWA and Other Agencies	Yes	Additional reviews and associated approvals.

Discussion of Option F

- **Are You Ready to Start Talking About the Pros/Cons of This Option?**
- **How Do You See the Pros/Cons of This Option?**
- **Is There Any Additional Information You Want to Understand This Option?**

Closing / Questions / Next Steps

- **Summarize Additional Information Requested**
- **Proposed Priorities/Topics for Meeting #5**
- **Meeting Evaluation**

THANK YOU!